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Supply of Building Materials in Canada

OUTLOOK 1952

Presented to Parliament by
The Right Honourable C. D. Howe, M.P.
Minister of Trade and Commerce



CANADA

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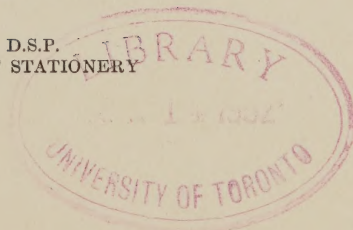


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INTRODUCTION

This report, the sixth in an annual series, appraises the outlook for the production and supply during 1952 of 33 selected materials used in construction. It is based on a survey made in December, 1951 of what manufacturers anticipate they will produce in 1952. A companion study released concurrently entitled *Private and Public Investment in Canada—Outlook 1952* provides information on anticipated capital expenditures, most of this program being made up of various forms of construction. This report gives an indication of the volume of materials which will be available for this intended construction program.

Over the past six years shortages of building materials have from time to time prevented Canadians from proceeding with as large a volume of public and private construction as they would otherwise have done. By June of 1950 supplies of most building materials had caught up with demand and the end of shortages in this field appeared in sight. However, conditions arising from the outbreak of hostilities in Korea provided a new stimulus to construction activity. This, along with steel shortage which had developed, resulted in a worsening in the building materials supply situation. By early 1951 the competition for scarce materials was threatening to cause serious delays in all sectors of the program including projects of special importance to defence preparedness, and was exerting a strong upward pressure on prices. At this juncture the Federal Government adopted measures designed to ensure the availability of materials for the most urgent uses and also to keep the volume of construction at a level commensurate with the capacity of the economy. Direct controls over the use of steel materials in less essential types of construction were introduced and fiscal measures designed to discourage such construction were enacted. As a result of these measures, and the substantial rise in the domestic supply of building materials, the heavy programs of defence construction, industrial expansion and resource development were proceeded with and were not unduly impeded by materials shortages. While house-builders did not encounter serious shortages there was a decline in housebuilding activity during the year. Some projects of a less essential nature requiring steel were delayed and others were not proceeded with.

On the basis of the surveys made it appears that some improvement in the building materials supply situation will take place in 1952 and that materials will be available in adequate quantities to permit completion of practically all the construction now known to be planned for the year. At the same time supplies of some steel-consuming products will remain generally tight. Cement supplies are apt to fall short of total orders during the first part of this season and shortages of certain other items may entail delays in some instances.

Government agencies which have given assistance in the preparation of this report include the Dominion Bureau of Statistics and the Commodities Branch of the Department of Trade and Commerce, and the Department of Defence Production. Mr. M. J. Mahoney of the Dominion Bureau of Statistics was in charge of the survey of producers' intentions. This report was prepared by Mr. J. W. Morrow of the Economics Division of the Department of Trade and Commerce.

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Section I

GENERAL OUTLOOK FOR THE SUPPLY OF BUILDING MATERIALS IN 1952

On the basis of the present survey there will be an increase in 1952 in the available quantities of most of the materials used in construction and a number of items which were short in 1951 will move into adequate supply. As a consequence there should be sufficient materials available to permit the realization of the 2 to 3 percent volume increase in the construction program indicated by the survey of investment intentions. Nevertheless, the construction program based on the survey of investment intentions probably does not represent the full potential demand in the construction field. Thus, the availability of certain materials will continue to act as a limiting factor to the total volume of construction realized. In this way, structural steel, concrete reinforcing bars and steel pipe are likely to remain in short supply and cement deliveries will be slow during the summer and early autumn. Deliveries of rigid insulating board and of a few types of electrical equipment used in construction may also be slow but this is not likely to result in any serious curtailment of construction.

The shortages which will prevail come about in part as a result of the change in composition of the investment program. The increased activity will be concentrated largely in defence construction, utilities, manufacturing and institutions and there will be declines in residential housing, trade, finance and commercial services construction. The net effect of these changes in the content of the construction program will be to place heavier demands upon available supplies of structural steel, concrete reinforcing bars and cement, while pressure on supplies of materials used principally in housing will be eased.

The results of the survey of 1952 production intentions of Canadian producers of building materials together with the actual production of 1951 are shown in Table 1 on page 23. Of the materials surveyed, the production of 20 is expected to increase, of 6 to decrease and of 5 to remain the same. A production increase of more than 10 per cent is expected for hot water storage tanks, gypsum products, cement and concrete brick and building blocks; of from 3 to 10 per cent for furnaces, cast iron radiators, sanitary ware, cement pipe and tile, non metallic sheathed cable, mineral wool products, rigid insulating boards, and asphalt shingles. Declines in output are expected for steel pipe and fittings, electrical hot water heaters, sawn lumber, building brick, structural tile, and builders' hardware.

Domestic output of concrete reinforcing bars will probably be maintained at about last years' level and there may be a slight increase in the output of those types of structural steel produced in Canada. However, overall availability of these items will depend upon imports. Demand for these products will remain high and even should the volume of imports be maintained at last year's level it must be expected that they will continue short in 1952. Canadian manufacturers may produce less steel pipe than last year, and consequently this product may be in short supply; the larger sizes are the most likely to be difficult to obtain, and this will be felt by builders of municipal waterworks and large industrial projects. Builders of residential housing, on the other hand, will probably not be seriously affected; copper tubing will be in adequate supply and this should help relieve the pressure on supplies of the smaller sizes of steel pipe.

Domestic production of cement is expected to rise by over 12 per cent. A large part of this increase, however, will occur in the second half of the year as more new plant comes into operation, and imports will probably have to be arranged for the summer and early autumn if a shortage is to be averted.

Deliveries on rigid insulating boards and a few types of electrical equipment used in construction including rigid conduit, switchgears and large sized armoured cables may be slow. These products are widely used in building construction, and the defence construction program will place additional strains upon available supplies.

Output of the remainder of building materials which were surveyed is expected to be generally sufficient to meet all requirements in 1952. In the cases of a few, for example, gypsum products, the industries are just emerging from a period in which their output was below requirements, and capacity output is planned for 1952. In other cases, 1952 production intentions are necessarily based upon producers' anticipations of demand, and realized output may deviate considerably from intentions if the level of demand is not what producers expect it to be. Thus, a decline in housing completions from 1951 might well reduce the demand for sanitary ware and heating equipment below the levels anticipated by manufacturers. On the other hand, the high overall level of construction activity which is planned may well raise the demand for clay products above that which is anticipated by manufacturers.

Section II

THE SUPPLY OF BUILDING MATERIALS 1946-1951

At the beginning of the reconstruction period following the end of the war a basic disequilibrium existed between the supplies of building materials and the requirements of the construction industry. The depressed conditions of the early 1930's had prevented the expansion of the building materials industries which would normally have been expected to occur with the growth of population. There had been some recovery during the late 1930's and construction activity in the early war years had been intense. However, after Canada's war production effort had gotten under way the rate of construction had declined again and the building materials industries had no longer been in a position to expand productive facilities and to add to their skilled labour force. As a result, these industries entered the post war period in an underdeveloped state to meet the needs of a larger and more highly industrialized nation, and the abnormal demands of rapid reconstruction made the situation critical. Nonetheless, while the output of building materials lagged behind demand for several years, there was steady expansion of productive facilities and by 1950 most items were in adequate supply and the end of shortages in this field was in sight.

While a new series of shortages has developed since the middle of 1950, the cause is no longer one of basic disequilibrium between the Canadian building materials industries and the construction industry nor, barring unforeseen events, is the situation likely to be as prolonged as the 1946-1949 shortage. The principal causes of the present shortages, which are pretty well confined to steel rolling mill products and, to a lesser degree, cement, are the abnormally high level of construction activity consequent upon the defence preparedness program and the world steel shortage. This has prevented for a time the coming into good supply of some of the few remaining products which had not quite caught up with demand by 1950.

The following table traces the parallel growth of the Canadian building materials and construction industries since 1946:

Year	Building Materials Industry		Construction Industry	
	Number Employed ⁽¹⁾	Capital Expenditures	Number Employed	Capital Expenditures
	thousands	(\$ millions)	thousands	(\$ millions)
1946.....	84	16	227	21
1947.....	98	28	252	32
1948.....	105	37	289	59
1949.....	109	38	323	42
1950.....	114	41	338	71
1951 ⁽²⁾	118	59	362	85
1952 ⁽³⁾	(4)	52	(4)	94

(1) Employment reported by firms with 15 or more employees.

(2) Preliminary.

(3) Investors' intentions.

(4) Not available.

The extent to which production of the different building materials has increased varies considerably but the following table shows production of a few selected materials since 1946:

Materials	Units	1946	1947	1948	1949	1950	1951 ⁽¹⁾	1952 ⁽²⁾
Structural Steel and Piling	Thousand tons.....	131.9	180.2	175.1	168.1	158.1	215.4	⁽³⁾
Lumber.....	Million board feet.....	5,083	5,878	5,909	5,915	6,509	6,453	6,357
Cement.....	Million barrels.....	10.7	12.2	14.0	16.1	16.7	17.1	19.2
Building Brick.....	Million bricks.....	316.7	332.9	361.6	384.0	420.5	439.4	423.1
Mineral Wool Batts.....	Million square feet.....	54.8	82.3	93.4	137.8	150.6	149.7	155.7
Gypsum Wallboard.....	Million square feet.....	203.4	213.7	237.7	230.6	230.7	230.2	287.5

(1) Preliminary.

(2) Producers' intentions.

(3) Not available.

Table 2 on page 24 shows annual production of a more comprehensive list of building materials since 1946.

Canada relies largely upon domestic production for her supplies of building materials but the bulk of her imports in this field are made up of a relatively small number of items which constitute essential supplements to domestic supplies. Thus, Canada imports most of her heavy structural steel, and a substantial though decreasing part of her supplies of common colourless window glass. In addition, imports have from time to time contributed to the alleviation of serious shortages of cement, building brick, gypsum lath, wire nails and other products. The following table shows the dollar values of imports of selected building materials since 1946:

Material	1946	1947	1948	1949	1950	1951
(imports in thousands of dollars)						
Wire Nails and Spikes.....	107.4	732.7	1,315.7	2,083.8	517.3	1,770.6
Structural Steel and Piling.....	5,664.7	13,025.5	15,694.9	16,405.0	14,791.8	33,423.1
Cement.....	1,098.5	3,843.6	3,995.2	6,877.9	3,789.0	7,447.9
Building Brick.....	57.4	348.8	366.5	914.3	773.6	981.9
Common Colourless Window Glass.....	2,671.8	4,716.4	6,488.4	4,397.6	4,461.4	4,586.4
Paints, Varnishes and Lacquers.....	1,588.4	2,303.7	921.0	1,491.6	1,873.6	2,333.1

As a result of greatly increased domestic production and increased imports the building materials supply situation was showing definite improvement by 1948. During that year roofing materials, electric water heaters, paints, varnishes and lacquers, electrical wire and wiring devices came into fairly good supply. By the middle of 1949 plumbing supplies, sanitary ware and heating equipment made from domestic pig iron and scrap were readily available. Later that year and during the first half of 1950 the supplies of most steel items were also sufficient to meet the requirements of the nation's construction program. In the second half of 1950, however, the new upsurge in construction activity,

together with the metals scarcity which had developed, brought on a new series of shortages; by the end of the year structural steel, steel pipe, copper tubing and hot water storage tanks were all in short supply.

In 1951 the shift in emphasis from housing construction to industrial expansion and resource development, together with the steel shortage, led to an imbalance in building materials supplies. While the physical volume of housing construction declined, that of all other types of construction rose by about 12 per cent. This had the effect of easing the pressure on supplies of materials of which house builders are heavy users, such as furnaces, insulation and lumber, and of placing heavy strains upon the supplies of structural steel, steel pipe, concrete reinforcing bars and cement which are used in industrial and engineering construction. The steel shortage exerted an adverse effect upon supplies of some other building materials which require steel in their manufacture; included among these were hot water storage tanks and some types of electrical equipment used in construction. Nevertheless, on balance, if the steel shortage be excepted, 1951 saw a continuation of the trend in building materials towards equilibrium between supply and demand. Production of all products which had been short in 1950 rose and a number of items came into good supply for the first time since the war. Thus, building brick production caught up with demand last year, and the supply positions of gypsum products and rigid insulating boards improved.

Section III

CURRENT SUPPLY AND OUTLOOK FOR BUILDING MATERIALS

IRON AND STEEL PRODUCTS

(1) *Structural Steel and Piling*

Structural steel and piling have been in short supply almost continuously since the war despite the fact that domestic supply rose from 218,800 tons in 1946 to 509,200 tons in 1951.

There was a temporary improvement in the supply situation early in 1950 due to a decline in industrial construction, but demand rose rapidly after the outbreak of hostilities in Korea and by the end of that year a severe shortage had developed. Since that time the heavy programs of defence, resource development and industrial expansion have kept structural steel in very short supply. While the Federal Government has adopted rigorous measures to contain the effective demand, to channel available supplies to the most urgent uses and, more recently, to ensure against unnecessary inventory accumulation, builders nonetheless experienced delays in obtaining their requirements in 1951.

The following table shows domestic production, imports less exports, and domestic supply of structural steel and piling since 1946:

—	1946	1947	1948	1949	1950	1951 ⁽¹⁾	1952
	(thousands of tons)						
Domestic Production.....	131.9	180.2	175.1	168.1	158.1	215.4	(2)
Imports less Exports.....	86.9	162.5	151.5	168.4	163.3	293.8	(3)
Domestic Supply.....	218.8	342.7	326.6	336.5	321.4	509.2	(3)

(1) Preliminary.

(2) Additional plant for the manufacture of structural steel of sizes within ranges already being produced will come into operation late in 1952; no estimate of the effect of this on 1952 production is available.

(3) Not available.

The dependence of the Canadian construction industry upon imports has actually been much greater than the above figures would indicate because of the fact that all of our heaviest structurals must be imported. The completion of the Canadian construction program has, therefore, been dependent upon our being able to obtain large quantities of structural steel from United States, United Kingdom and European sources at a time when heavy demands have been creating shortages in those countries as well. While the principal source of Canadian imports has normally been the United States there has been a remarkable rise in importance to Canada of European suppliers in the last three years on account of the impossibility of obtaining sufficient supplies from the United States and of the willingness of many Canadian users to pay the higher prices which have been demanded for European structurals.

Total Canadian requirements of structural steel in 1952 will be at least as large as the record amount used in 1951 and potential requirements will be even larger. While some new domestic productive capacity is expected to come into operation late in 1952, the greater part of Canada's supplies will be purchased from abroad as in the past. Thus, even should imports be maintained at last year's level, a situation of continuing tightness must be anticipated in 1952.

(2) Concrete Reinforcing Bars

Concrete reinforcing bars have been in short supply more or less continuously since the war except in the first half of 1950. On the demand side this has been due to the large and growing volume of heavy construction and to the shortage of structural steel which has increased the dependence of builders upon reinforced concrete.

Domestic production of concrete reinforcing bars rose steadily from 50.7 thousand tons in 1946 to 108.3 thousand tons in 1949; it dropped to 102.6 thousand tons in 1950 and then rose to an all time peak of 148.2 thousand tons in 1951. While Canada normally produces most of her requirements of concrete reinforcing bars, the balance of output between this product and other bar products is affected by many complex economic and technical factors. Thus, in 1951 there occurred the apparent paradox of a greatly increased domestic output of reinforcing bar and at the same time a substantial rise in merchant bar production. Despite this increase in Canadian production, the demand was such that a considerable volume of high priced European imports had to be found in order to meet urgent requirements.

In 1952, the increased volume of private and defence construction which is planned, together with the continuing shortage of structural steel, will probably keep the demand for concrete reinforcing bars at about last year's level. The high rate of domestic output of this product is likely to be maintained, but overseas sources may contribute less to total supply. Whether or not the current tight supply position will hold unabated therefore hinges upon imports from the United States. On balance it must be expected that reinforcing bars will continue in short supply through the year.

(3) Wire Nails and Spikes

Wire nails and spikes were generally in adequate supply during 1951 although some temporary local shortages were reported, particularly in the first half of the year. The domestic supply was about 13 per cent higher than in 1950 due partly to higher domestic production and partly to a considerable increase in imports. While inventories were low at the beginning of the year they were at fairly satisfactory levels by the end of the year. The following table shows the domestic supply and domestic disappearance of wire nails and spikes in Canada since 1946:

	Domestic Production	Imports	Exports	Domestic Supply
	(thousands of tons)			
1946.....	58.9	0.7	1.3	58.3
1947.....	77.4	4.1	—	81.5
1948.....	86.8	6.3	1.9	91.2
1949.....	88.5	13.3	0.5	101.3
1950.....	86.2	3.5	—	89.7
1951 ⁽¹⁾	91.0	10.1	—	101.1
1952.....	92.5 ⁽²⁾	⁽³⁾	⁽³⁾	⁽³⁾

(1) Preliminary.

(2) Producers' intentions.

(3) Not available.

Producers expect a moderate increase in their production of nails in 1952.

Output will be determined by the level of demand and no shortages are anticipated.

(4) *Plumbing Supplies*

Iron and Steel Pipes and Fittings came into reasonably good supply late in 1949; by the end of that year they were generally available and inventories were rising. Since that time, production of pipe and fittings made from cast iron has kept pace with demand. On the other hand, the supply of steel pipe began to decline late in 1950, and it was in tight supply throughout 1951.

The improvement in the supply of Cast Iron Soil and Pressure Pipe and Fittings in 1949, which continued through 1950 and 1951, was due largely to the greater availability of raw materials, principally pig iron and iron scrap. In 1951 some plants were operating below maximum capacity and supply was geared to demand. The following table outlines the domestic disappearance of cast iron soil pipe and fittings since 1946:

Year	Production	Exports	Domestic Supply	Stocks at Dec. 31	Domestic Disappearance
(thousands of tons)					
1946.....	24.5	0.2	24.3	1.3	24.0
1947.....	32.5	0.2	32.3	1.6	32.0
1948.....	45.7	0.7	45.0	2.9	43.7
1949.....	44.3	1.0	43.3	4.9	41.3
1950.....	54.0	1.4	52.6	4.6	52.9
1951 ⁽¹⁾	53.0	0.9	52.1	4.8	51.9
1952.....	53.5 ⁽²⁾	⁽³⁾	⁽³⁾	⁽³⁾	⁽³⁾

⁽¹⁾ Preliminary.

⁽²⁾ Producers' intentions.

⁽³⁾ Not available.

Production, stocks and domestic disappearance of cast iron pressure pipe and fittings since 1946 were as follows:

Year	Production	Stocks at Dec. 31	Domestic Disappearance
(thousands of tons)			
1946.....	65.2	⁽³⁾	⁽³⁾
1947.....	77.7	2.3	⁽³⁾
1948.....	93.0	4.7	90.6
1949.....	91.5	8.3	87.9
1950.....	80.8	6.7	82.4
1951 ⁽¹⁾	116.2	9.2	113.7
1952.....	116.2 ⁽²⁾	⁽³⁾	⁽³⁾

⁽¹⁾ Preliminary.

⁽²⁾ Producers' intentions.

⁽³⁾ Not available

As these tables show, Canadian manufacturers expect their production in 1952 to be about the same as in 1951. These supplies should be sufficient to take care of requirements, but production can be increased further if the demand develops.

Steel pipe was in short supply in 1951 and inventories were low. There was some improvement towards the end of the year in the supply of smaller sizes such as are used in housing construction, but the larger sizes of the type used in municipal waterworks remained very short. While there was a considerable increase in production, manufacturers were hampered by inability to obtain their full requirements of skelp which is used for making pipe. Canada is

heavily dependent upon imports of skelp and the volume of these was down considerably in 1951 from 1950. The following table shows production and stocks of steel pipe since 1946:

Year	Production	Stocks
1946.....	115.7	17.2
1947.....	118.0	6.7
1948.....	132.0	8.9
1949.....	185.0	17.6
1940.....	164.3	29.5
1951 ⁽¹⁾	186.9	18.5
1952.....	180.2 ⁽²⁾	⁽³⁾

(1) Preliminary.

(2) Producers' intentions.

(3) Not available.

In 1952 some Canadian manufacturers may not be able to obtain sufficient skelp to keep their mills operating at capacity. It follows in consequence that production of steel pipe may be slightly lower than in 1951. While users of the smaller sizes, such as housebuilders, will probably be able to obtain their requirements without too much difficulty, it is expected that the larger sizes will be more difficult to obtain, and users of these sizes such as municipalities and builders of industrial facilities could suffer some delays as a result.

LUMBER

Domestic supply and requirements of lumber were in fairly even balance during 1951. Inventories continued high during the year but prices remained at high levels. Figures showing the supply and apparent domestic consumption of lumber in recent years are given in the following table:

Year	Production	Imports	Exports	Domestic Supply	Stocks at Dec. 31	Apparent Domestic Consumption
(millions of board feet)						
1946.....	5,083.3	59.1	2,083.3	3,059.1	475.0	3,054.1
1947.....	5,877.9	114.9	2,735.0	3,257.8	502.6	3,230.2
1948.....	5,908.8	42.9	2,467.7	3,484.0	692.6	3,294.0
1949.....	5,915.4	80.6	2,189.5	3,806.5	744.4	3,754.7
1950.....	6,509.0	86.2	3,578.7	3,016.5	723.1	3,037.0
1951 ⁽¹⁾	6,453.4	132.5	3,439.4	3,146.5	816.2	3,053.4
1952.....	6,356.6 ⁽²⁾	⁽³⁾	⁽³⁾	⁽³⁾	⁽³⁾	⁽³⁾

(1) Preliminary.

(2) Producers' intentions.

(3) Not available.

In British Columbia, output was approximately the same as in 1950. The level of production in the first 6 months was considerably higher than during the corresponding period of 1950, but during the summer, the serious forest fire situation led to a sharp reduction in logging, and this exerted an adverse effect on lumber output during the latter part of the year. Some shortages of heavy fir timbers were reported. Shipments were higher during the first half of the year than during the corresponding period of 1950, but declined during the last quarter due to the drop in production. Exports to the United Kingdom, under a contract running until June, 1952 were considerably higher than in 1950. The U.S. market for shingles was poor and B.C. shingle mills have been forced to curtail operations sharply. All in all, except for the shingle mills, and for mills which ran short of logs, the industry operated at full capacity throughout the year.

East of the Rockies, output was also maintained at approximately the 1950 level. Production and shipments were higher during the first half of the year than during the corresponding period of 1950 while slight declines were registered during the last quarter. Inventories, both at the mills and in the hands of dealers, rose substantially, and by the end of the year supplies of most types of lumber were ample.

The sawmilling industry in British Columbia expects to produce slightly more in 1952 than in 1951, while the industry east of the Rockies expects to produce slightly less; on balance, a slight drop in production is expected. This estimate of production is well within the industry's productive capacity. Should the demand prove to be greater than this, producers in some areas will be capable of expanding output, and no shortages are anticipated.

Hardwood Flooring was in good supply in 1951, and there was some curtailment of output due to a drop in demand. Deliveries of *Fir Plywoods* showed a distinct improvement over 1950, when deliveries had been slow; output rose substantially in 1951. *Birch Plywood* was in good supply, output being determined mainly by demand.

In 1952 it is expected that hardwood flooring and birch plywood will be in good supply, with the level of output being set by demand. Output of fir plywood is scheduled to rise and a further improvement in the supply situation is expected.

CEMENT AND CEMENT PRODUCTS

Supplies of cement were short in all sections of the country during the months of high construction activity in 1951. Inventories were low throughout the year. The total domestic supply, however, rose by about 7 per cent over that of 1950 and supplies were actually below requirements by a very small amount. Cement products were in fairly good supply.

The rise in domestic supply was due mainly to imports which rose by more than 50 per cent over 1950, and which served to tide the country over a critical period. Domestic production rose by about 2 per cent due mainly to the fact that plants were operated at maximum capacity throughout the year whereas there had been a slight cut-back during the early months of 1950. Bad weather in the closing months of the year hampered manufacturers and prevented any further increase in production. A new plant of small size commenced operations in Quebec during the year.

The demand for cement remained high throughout the year in spite of a drop in housing starts from 1950. This was due in large measure to the high level of activity in construction of new manufacturing facilities and defence construction. Another factor was the shortage of structural steel which led many builders to choose reinforced concrete where they might otherwise have used structural steel.

The following table outlines the trend in supply and domestic disappearance of cement since 1946:

Year	Production	Imports	Domestic Supply	Stocks at Dec. 31	Domestic Disappearance
	(millions of barrels)				
1946.....	10.7	0.4	11.1	0.5	12.0
1947.....	12.2	1.2	13.4	0.7	13.2
1948.....	14.0	1.1	15.1	0.6	15.2
1949.....	16.1	2.3	18.4	0.8	18.2
1950.....	16.7	1.4	18.1	0.7	18.0
1951 ⁽¹⁾	17.1	2.3	19.4	0.9	19.2
1952.....	19.2 ⁽²⁾	⁽³⁾	⁽³⁾	⁽³⁾	⁽³⁾

⁽¹⁾ Preliminary.

⁽²⁾ Producers' intentions.

⁽³⁾ Not available.

While the physical volume of construction is not expected to rise by more than 3 per cent in 1952 much of the rise will be concentrated in sectors which call for large quantities of cement, and total cement requirements will probably be substantially higher than last year. In particular, the construction programs in the defence and utilities sectors are expected to be larger and industrial construction will remain at a high level. At the same time, the shortage of structural steel, which is expected to continue through 1952, will keep the cement content of construction at a high level.

Domestic production of cement is expected to rise by about 12 per cent in 1952 mainly as a result of the bringing of new plant into operation. Two new plants with a total annual capacity of 1.2 million barrels are expected to be in operation in the Maritimes by the spring. Other new facilities with a combined annual capacity of 2.4 million barrels are under construction in Ontario, Alberta and British Columbia. These latter facilities, however, are not likely to be completed in time for a full season's operations and some imports will probably be necessary if a shortage is to be averted. On balance it appears likely that cement will be in tight supply during the height of the building season and that deliveries will be slow except in the Maritimes where the supply should be sufficient to meet demand.

Cement Products were in fairly good supply during 1951, although manufacturers did not receive all the cement they required and some temporary shortages were reported. Output of *cement bricks* and *building blocks* dropped 1.4 per cent and that of *cement pipe* and *tile* rose by 25 per cent. The supply situation of cement products in 1952 is likely to be the same or slightly better than it was in 1951. Manufacturers of cement products expect to increase their output, but they may be hampered to some extent by cement shortages. Nevertheless, supplies will probably continue to be fairly good.

CLAY PRODUCTS

During the second half of 1951 Building Brick came in to fairly good supply; this marked the end of a shortage which has persisted throughout the post-war period. The year ended with fairly well balanced inventories and with some manufacturers operating below full capacity.

The following table outlines trends in domestic supply and domestic disappearance of building brick in recent years.

Year	Domestic Produc- tion	Imports	Exports	Domestic Supply	Stocks at Dec. 31	Domestic Disappear- ance
	(millions of bricks)					
1946	316.7	1.1	6.1	311.7	18.9	311.8
1947	332.9	8.9	4.2	337.6	21.2	335.3
1948	361.6	8.3	4.9	365.0	21.2	365.0
1949	384.0	21.9	4.3	401.6	31.3	391.5
1950	420.5	16.6	2.8	434.3	23.9	441.7
1951 ⁽¹⁾	431.5	19.0	3.8	446.7	40.5	430.1
1952	415.5 ⁽²⁾	⁽³⁾	⁽³⁾	⁽³⁾	⁽³⁾	⁽³⁾

⁽¹⁾ Preliminary.

⁽²⁾ Producers' intentions.

⁽³⁾ Not available.

A small drop in production is expected by manufacturers during 1952. This expectation, however, is based upon their assessment of probable demand, and greater production will be possible if the need arises. In any event, serious shortages of building brick are unlikely to be encountered during 1952.

No serious shortages of other clay products were encountered during 1951. Production was up in most cases, except for vitrified sewer pipe where production was down. The following table shows production of clay products since 1946:

Year	Vitrified Flue Linings	Vitrified Sewer Pipe	Structural Tile
	(millions of ft.)	(millions of ft.)	(thousands of tons)
1946.....	1.0	3.2	140.8
1947.....	1.2	4.2	158.1
1948.....	1.3	5.3	165.7
1949.....	1.3	4.6	180.4
1950.....	1.4	5.1	193.8
1951 ⁽¹⁾	1.5	4.2	201.6
1952.....	1.5 ⁽²⁾	4.2	191.9

(1) Preliminary.

(2) Producers' intentions.

Manufacturers of clay products other than brick expect to produce about the same amount in 1952 as was produced in 1951. Output could, however, be increased if warranted by demand, so that no serious shortages are expected.

MINERAL WOOL PRODUCTS

Mineral Wool products used for insulating purposes have been in adequate supply since 1948; the level of output has been determined by demand and stocks have been maintained at satisfactory levels. The following table outlines the domestic supply and domestic disappearance of *mineral wool batts* since 1946:

Year	Domestic Production	Imports	Domestic Supply	Stocks at Dec. 31	Domestic Disappearance
	(millions of square feet)				
1946.....	54.8	7.8	62.6	0.4	62.3
1947.....	82.3	5.8	88.1	0.6	87.9
1948.....	93.4	0.1	93.5	0.6	93.5
1949.....	137.8	0.1	137.9	2.0	136.5
1950.....	150.6	0.1	150.7	1.7	151.0
1951 ⁽¹⁾	149.7	0.4	150.1	3.2	148.6
1952.....	155.7 ⁽²⁾	(3)	(3)	(3)	(3)

(1) Preliminary.

(2) Producers' intentions.

(3) Not available.

Practically all of the *Bulk Mineral Wool* (granulated and bulk or loose) used in this country is made here. Output reached a peak of 14.7 million cubic feet in 1949; it dropped to 12.9 in 1950 and to 11.5 in 1951.

Canadian manufacturers expect moderate increases in their production of mineral wool products during 1952, and no shortages are expected during the next 12 months.

GYPSUM PRODUCTS

Gypsum products were in better supply in 1951 than in 1950. There were some local shortages in the Maritimes, Ontario and Quebec at the height of the construction season but supplies were adequate by the end of the year and stocks were at satisfactory levels. Manufacturers have now found it possible to dis-

continue allocation of their output to wholesalers. The following table outlines Canadian production and stocks of *gypsum wallboard, lath and hardwall plaster* since 1946:

Year	Gypsum Wallboard		Gypsum Lath		Hardwall Plaster	
	Production	Stocks at Dec. 31	Production	Stocks at Dec. 31	Production	Stocks at Dec. 31
	(Mil. sq. feet)		(Mil. sq. feet)		(Thousands of tons)	
1946.....	203.4	1.8	75.0	0.7	97.3	0.6
1947.....	213.7	1.2	111.1	0.6	119.7	0.5
1948.....	237.7	1.6	153.0	0.5	137.1	0.9
1949.....	230.6	1.2	174.0	0.7	160.8	0.8
1950.....	230.7	2.6	214.7	2.1	164.3	0.9
1951 ⁽¹⁾	230.2	2.6	223.1	2.5	168.5	1.0
1952.....	265.0 ⁽²⁾	⁽³⁾	260.0 ⁽²⁾	⁽³⁾	200.3 ⁽²⁾	⁽³⁾

(1) Preliminary.

(2) Producers' intentions.

(3) Not available.

Output of gypsum products is scheduled to rise substantially in 1952 and no serious shortages are anticipated. Part of the rise in production will be due to a new plant in Newfoundland which will be producing gypsum lath and wallboard in 1952.

HEATING EQUIPMENT

Heating equipment was readily available during 1951 except for hot water storage tanks which were in short supply. Output of most items was higher than in 1950 but by the end of the year some plants were operating below full capacity.

Annual production of *Electric Water Heaters* has risen steadily throughout the post-war period and supply caught up with demand in 1948. Since then, adequate inventories have been maintained and output has been based upon requirements.

Cast Iron Radiators have been in good supply since 1948. Last year manufacturers were able to satisfy all requirements while operating a little below maximum capacity, and no shortages were reported.

Supplies of *Warm Air Furnaces and Heating Boilers* were roughly in balance with demand during the early part of 1950. By the latter part of that year, however, manufacturers were experiencing difficulties in obtaining sheet steel while distributors were having the same difficulties in obtaining sheet steel for ducting. Nevertheless, these difficulties were overcome sufficiently to permit a substantial rise in production during the first half of 1951, and no shortages were reported. After mid-year there was a drop in demand and furnaces were in good supply for the remainder of the year.

Production of *Hot Water Storage Tanks* (Range Boilers) has been severely affected by the shortage of black steel sheet suitable for galvanizing since the latter part of 1950. Output during 1951 fell considerably short of manufacturers' expectations and deliveries have been slow. Inventories dropped very low during the summer, but they were rising again by the end of the year due to a decline in sales, and supplies were becoming less tight.

The following table outlines production and stocks of heating equipment in the post-war period:

Year	Production				Stocks at Dec. 31		
	Warm Air Furnaces and Heating Boilers	Electric Water Heaters	Hot Water Storage Tanks	Cast Iron Radiators ⁽¹⁾	Electric Water Heaters	Hot Water Storage Tanks	Cast Iron Radiators ⁽¹⁾
	(Thousands of units)						
1946.....	60.9	76.6	138.4	8.0	0.8	0.1	0.4
1947.....	72.4	121.0	157.7	8.7	3.9	0.3	0.5
1948.....	82.4	146.7	190.0	8.6	12.1	0.2	0.6
1949.....	96.2	185.2	192.2	7.2	18.1	1.2	0.6
1950.....	109.2	228.1	181.6	7.3	18.3	2.8	0.3
1951 ⁽²⁾	100.8	293.2	156.3	7.9	54.1	2.2	0.8
1952.....	108.6 ⁽³⁾	289.1 ⁽³⁾	181.8 ⁽³⁾	8.5 ⁽³⁾	⁽⁴⁾	⁽⁴⁾	⁽⁴⁾

⁽¹⁾ Millions of square feet.

⁽²⁾ Preliminary.

⁽³⁾ Producers' intentions.

⁽⁴⁾ Not available.

During 1952 electric water heaters, cast iron radiators, warm air furnaces and heating boilers will probably continue to be in good supply. On the other hand hot water storage tanks may continue in short supply; it is likely that manufacturers will continue to be hampered by a shortage of black steel sheet, and this may prevent them from realizing their production intentions, but the situation may improve in the second half of the year.

SANITARY WARE

Supplies of bath tubs sinks and wash basins caught up with demand in 1949. They remained in good supply through most of 1950, but toward the end of that year, a shortage of steel sheet caused a reduction in output of enamelled steel sinks and bath tubs, and these products were in short supply in the early part of 1951. With the decline in housebuilding activity, however, demand for bath tubs and sinks fell off, and the shortages disappeared in the second half of the year. The high level of industrial building has kept the demand for wash basins at a high level. Supplies of vitreous china were ample throughout the year. By the end of the year, stocks of sanitary ware were high and production of most items had been cut back in step with the continuing requirements of the construction industry.

The following table outlines production and inventories of bath tubs, sinks and wash basins since 1946:

Year	Production			Stocks at Dec. 31		
	Bath Tubs	Sinks	Wash Basins	Bath Tubs	Sinks	Wash Basins
	(Thousands of Units)					
1946.....	57.9	103.7	78.6	1.0	3.5	3.9
1947.....	81.1	120.7	90.7	1.5	4.8	6.8
1948.....	102.1	139.6	109.9	0.6	4.3	3.1
1949.....	132.5	192.0	140.8	1.2	13.9	6.8
1950.....	139.2	169.7	201.1	1.5	10.2	9.0
1951 ⁽¹⁾	120.8	117.7	195.7	13.2	24.4	39.8
1952.....	132.3 ⁽²⁾	128.5 ⁽²⁾	204.1 ⁽²⁾	⁽³⁾	⁽³⁾	⁽³⁾

⁽¹⁾ Preliminary.

⁽²⁾ Producers' intentions.

⁽³⁾ Not available.

As the above table shows, manufacturers of sanitary ware expect to increase their output in 1952. Supplies of raw materials will be available to permit this expansion of output. In the cases of bath tubs and sinks, however, it is possible that the market will not be able to absorb a larger output than last year, and this may lead manufacturers to scale down their rate of production of these products.

ROOFING PRODUCTS

Asphalt Shingles and *Smooth and Mineral Surfaced Rolls* have been in adequate supply since 1948, and no shortages were reported during 1951. The following table shows the annual production from 1946 up to the present time

Year	Asphalt Shingles	Smooth and Mineral Surfaced Rolls
	(Millions of squares)	
1946.....	2.0	3.0
1947.....	2.1	3.4
1948.....	2.0	2.5
1949.....	2.1	2.4
1950.....	2.4	2.4
1951 ⁽¹⁾	2.2	2.5
1952 ⁽²⁾	2.3	2.5

(1) Preliminary.

(2) Producers' intentions.

Production during 1952 is expected to rise slightly and sufficient capacity exists in the industry to take care of all the demands likely to be encountered.

MISCELLANEOUS PRODUCTS

Glass

Most of the *Common Colourless Window Glass* used in Canada has, in the past, been imported, the principal suppliers being the United Kingdom, Belgium, Czechoslovakia, and France. These increased from 44 million sq. ft. in 1946 to a record volume of 96 million sq. ft. in 1948. In 1950 imports were 68.5 million sq. ft. and they were 69.5 million sq. ft. in 1951. Inventories were at a satisfactory level and supplies were adequate. There are now two plants operating in Canada, one in St. Laurent, Quebec, and one recently opened in Scarborough, Ontario, so that imports may be expected to decline in future. No shortages are likely to occur in 1952 and deliveries from domestic and foreign sources are expected to be scheduled to meet the continuing requirements of the construction industry.

Paints, Varnishes and Lacquers

The supplies of paints, varnishes and lacquers have increased steadily since the war. Last year, although there was a general shortage of the required raw materials during the first half of the year, manufacturers succeeded in maintaining output at a high level and these products were in adequate supply. Raw materials came into better supply in the second half of the year, and there was an easing of demand due partly to a drop in the requirements of the automobile industry. This made it possible for manufacturers to begin replenishing wholesalers' and retailers' stocks, and these were approaching adequate levels by the end of the year. Canadian manufacturers expect to maintain their output at about the 1951 levels and, assuming imports are also maintained, paints, varnishes and lacquers should continue in adequate supply in 1952.

The following table outlines Canadian production, imports and exports of paints, varnishes and lacquers since 1946:

Year	Production	Imports	Exports	Domestic Supply
(Value in millions of dollars)				
1946.....	53.0	1.6	3.0	52.6
1947.....	64.9	2.3	3.0	64.2
1948.....	75.8	0.9	1.1	75.6
1949.....	75.4	1.5	0.6	76.3
1950.....	84.1	1.9	0.4	85.6
1951 ⁽¹⁾	94.9	2.3	1.0	96.2
1952 ⁽²⁾	96.8	⁽³⁾	⁽³⁾	⁽³⁾

(¹) Preliminary.

(²) Producers' intentions.

(³) Not available.

Rigid Insulating Boards

Rigid Insulating Boards have been in tight supply for several years, and during the 1951 construction season Canadian mills found it necessary to continue allocating their output to distributors on a voluntary basis. Toward the end of the year, however, demand eased off enough to permit manufacturers to catch up on back orders and to build up stocks; distributors' stocks, on the other hand, were not very large. Production has been rising steadily since the war; a new mill was opened in 1950, and, partly as a result of this, production rose about 27 per cent in 1951. While further rise in production is planned for 1952, demand is expected to continue at high level, and rigid insulating boards will probably be in tight supply. The outlook is, therefore, that deliveries will be slow in the summer and autumn of 1952.

The following table outlines production, imports and exports of rigid insulating boards since 1946:

Year	Production	Imports	Exports	Domestic Supply
(Millions of square feet)				
1946.....	161.8	11.7	22.6	150.9
1947.....	203.1	24.9	31.9	196.1
1948.....	220.7	11.4	25.1	207.0
1949.....	222.7	59.6	19.0	263.3
1950.....	227.3	21.1	11.1	237.3
1951 ⁽¹⁾	289.4	13.1	34.4	269.5
1952.....	307.6 ⁽²⁾	⁽³⁾	⁽³⁾	⁽³⁾

(¹) Preliminary.

(²) Producers' intentions.

(³) Not available.

Builders' Hardware

Supplies of *Builders' Hardware* exceeded demand up until the middle of 1950. Following the outbreak of war in Korea, however, demand increased and domestic sales rose, remaining at a high level during the first half of 1951. During this period of high demand, manufacturers experienced difficulties in obtaining raw materials such as special metal shapes and alloy steels from the U.S. Nevertheless, they succeeded in raising domestic production and, despite restrictions due to the copper and steel content of builders' hardware, imports were also increased. As a result, while distributors' inventories were low, no serious shortages of essential builders' hardware were encountered, although range was limited and

builders often had to make substitutions. Demand eased off during the second half of the year due mainly to a decline in home building, and the supply of builders' hardware improved.

The following table illustrates trends in Canadian production, imports and exports of builders' hardware.

Year	Production	Imports	Exports	Domestic Supply
		(millions of dollars)		
1946.....	5.6	0.7	0.9	5.4
1947.....	5.9	1.0	1.3	5.6
1948.....	9.8	1.1	0.6	10.3
1949.....	10.0	1.2	0.3	10.9
1950.....	9.6	1.5	0.3	10.8
1951 ⁽¹⁾	11.7	1.9	0.5	13.1
1952.....	11.4 ⁽²⁾	(³)	(³)	(³)

(¹) Preliminary.

(²) Producers' intentions.

(³) Not available.

In 1952, manufacturers expect to produce slightly less than was produced in 1951. These intentions however, have been influenced by expectations of demand, and a somewhat larger volume of essential types of builders' hardware could be produced if necessary during 1952. Assuming that imports are maintained at about the same levels as during 1951, no serious shortages should occur, although range will be limited and substitutions will have to be made.

Section IV

REFERENCE TABLES

TABLE 1.—PRODUCTION AND PRODUCTION INTENTIONS FOR SELECTED
BUILDING MATERIALS IN CANADA, 1951 AND 1952

Material	Unit	Production 1951 ⁽¹⁾	Production Intentions 1952	Percentage Change 1951-1952
IRON AND STEEL PRODUCTS—				
Structural Steel and Piling.....	Thousand tons.....	215.4	(²)	—
Concrete Reinforcing Bars.....	Thousand tons.....	148.2	148.2(³)	0.0
Wire Nails and Spikes.....	Thousand tons.....	91.0	92.5	+ 1.6
PLUMBING SUPPLIES—				
Cast Iron Soil Pipe and Fittings....	Thousand tons.....	53.0	53.5	+ 1.0
Cast Iron Pressure Pipe and Fittings.	Thousand tons.....	116.2	116.2	0.0
Steel Pipe and Fittings.....	Thousand tons.....	186.9	180.2	— 3.6
SANITARY WARE—				
Bath Tubs.....	Thousand tubs.....	120.8	132.3	+ 9.5
Sinks.....	Thousand sinks.....	117.7	128.5	+ 9.2
Wash Basins.....	Thousand basins.....	195.7	204.1	+ 4.3
HEATING EQUIPMENT—				
Furnaces—Warm Air and Heating				
Boilers.....	Thousand furnaces.....	100.8	108.6	+ 7.7
Electric Water Heaters.....	Thousand heaters.....	293.2	289.1	— 1.4
Hot Water Storage Tanks (Range				
Boilers).....	Thousand tanks.....	156.3	181.8	+16.3
Cast Iron Radiators.....	Million square feet.....	7.9	8.5	+ 7.6
SAWN LUMBER.....	Billion b.f.m.....	6.5	6.4	— 1.5
CEMENT AND CEMENT PRODUCTS—				
Cement.....	Million barrels.....	17.1	19.2	+12.3
Concrete Brick and Building Blocks.	Million pieces.....	136.5	154.7	+13.3
Cement Pipe and Tile.....	Thousand tons.....	292.8	319.2	+ 9.0
CLAY PRODUCTS—				
Building Brick (including Sand-Lime				
Brick).....	Million bricks.....	431.5	415.5	— 3.7
Vitrified Flue Linings.....	Million linear feet.....	1.5	1.5	0.0
Vitrified Sewer Pipe.....	Million linear feet.....	4.2	4.2	0.0
Structural Tile.....	Thousand tons.....	201.6	191.9	— 4.8
MINERAL WOOL PRODUCTS—				
Mineral Wool Batts (All sizes).....	Million square feet.....	149.7	155.7	+ 4.0
Bulk Mineral Wool (Granulated and				
Loose).....	Million cubic feet.....	11.5	12.1	+ 5.2
GYPSUM PRODUCTS—				
Gypsum Wallboard.....	Million square feet.....	230.2	265.0	+15.1
Gypsum Lath.....	Million square feet.....	223.1	260.0	+16.5
Gypsum Hardwall Plaster.....	Thousand tons.....	168.5	200.3	+18.9
ROOFING PRODUCTS—				
Asphalt Shingles (All weights).....	Million squares.....	2.2	2.3	+ 4.5
Smooth and Mineral Surfaced Rolls.	Million squares.....	2.5	2.5	0.0
MISCELLANEOUS PRODUCTS—				
Paints, Varnishes and Lacquers.....	Million dollars.....	94.9	96.8	+ 2.0
Rigid Insulating Boards.....	Million square feet.....	289.4	307.6	+ 6.3
Builders' Hardware.....	Million dollars.....	11.7	11.4	— 2.6
Non-Metallic Sheathed Cable.....	Million linear feet.....	93.5	98.9	+ 5.8

(1) Preliminary.
(2) Not available.
(3) Estimated.

TABLE 2.—HISTORICAL PRODUCTION OF SELECTED BUILDING MATERIALS
IN CANADA, 1946-1951

Material	Unit	1946	1947	1948	1949	1950	1951 ⁽¹⁾
IRON AND STEEL PRODUCTS—							
Structural Steel and Piling.....	Thousand tons.....	131.9	180.2	175.1	168.1	158.1	215.4
Concrete Reinforcing Bars.....	Thousand tons.....	50.7	78.1	86.5	103.3	102.6	148.2
Wire Nails and Spikes.....	Thousand tons.....	58.9	77.4	86.8	88.6	86.2	91.0
PLUMBING SUPPLIES—							
Cast Iron Soil Pipe and Fittings.....	Thousand tons.....	24.5	32.5	45.7	44.3	54.0	53.0
Cast Iron Pressure Pipe and Fittings.....	Thousand tons.....	65.2	77.7	93.0	91.5	80.8	116.2
Steel Pipe and Fittings.....	Thousand tons.....	115.7	118.0	132.0	185.0	164.3	186.9
SANITARY WARE—							
Bath Tubs.....	Thousand tubs....	57.9	81.1	102.1	132.5	139.2	120.8
Sinks.....	Thousand sinks....	103.7	120.7	139.6	192.0	169.7	117.7
Wash Basins.....	Thousand basins...	78.6	90.7	109.9	140.8	201.1	195.7
HEATING EQUIPMENT—							
Furnaces—Warm Air and Heating Boilers....	Thousand furnaces.	60.9	72.4	82.4	96.2	109.2	100.8
Electric Water Heaters.....	Thousand heaters..	76.6	121.0	146.7	185.2	228.1	293.2
Hot Water Storage Tanks (Range Boilers)....	Thousand tanks....	138.4	157.7	190.0	192.2	181.6	156.3
Cast Iron Radiators.....	Million sq. ft.....	8.0	8.7	8.6	7.2	7.3	7.9
SAWN LUMBER.....	Billion b.f.m.....	5.1	5.9	5.9	5.9	6.5	6.5
CEMENT AND CEMENT PRODUCTS—							
Cement.....	Million barrels....	10.7	12.2	14.0	16.1	16.7	17.1
Concrete Brick and Building Blocks.....	Million pieces.....	49.4	63.2	82.6	106.4	138.5	136.5
Cement Pipe and Tile.....	Thousand tons.....	94.8	134.7	159.3	218.9	233.2	292.8
CLAY PRODUCTS—							
Building Brick (including Sand-Lime Brick)..	Million bricks.....	316.7	332.9	361.6	384.0	420.5	431.5
Vitrified Flue Linings.....	Million lin. ft.....	1.0	1.2	1.3	1.3	1.4	1.5
Vitrified Sewer Pipe.....	Million lin. ft.....	3.2	4.2	5.3	4.6	5.1	4.2
Structural Tile.....	Thousand tons.....	140.8	158.1	165.7	180.4	193.8	201.6
MINERAL WOOL PRODUCTS—							
Mineral Wool Batts (All sizes).....	Million sq. ft.....	54.8	82.3	93.4	137.8	150.6	149.7
Bulk Mineral Wool (Granulated and Loose)...	Million cu. ft.....	10.1	9.8	10.1	14.7	12.9	11.5
GYPNUM PRODUCTS—							
Gypsum Wallboard.....	Million sq. ft.....	203.4	213.7	237.7	230.6	230.7	230.2
Gypsum Lath.....	Million sq. ft.....	75.0	111.1	153.0	174.0	214.7	223.1
Gypsum Hardwall Plaster.....	Thousand tons.....	97.3	119.7	137.1	160.8	164.3	168.5
ROOFING PRODUCTS—							
Asphalt Shingles (All weights).....	Million squares....	2.0	2.1	2.0	2.1	2.4	2.2
Smooth and Mineral Surfaced Rolls.....	Million squares....	3.0	3.4	2.5	2.4	2.4	2.5
MISCELLANEOUS PRODUCTS—							
Paints, Varnishes and Lacquers.....	Million dollars....	53.0	64.9	75.8	75.4	84.1	94.9
Rigid Insulating Boards.....	Million sq. ft.....	161.8	203.1	220.7	222.7	227.3	289.4
Builders' Hardware.....	Million dollars....	5.6	5.9	9.8	10.0	9.6	11.7
Non-Metallic Sheathed Cable.....	Million lin. ft.....	45.4	67.0	81.1	87.3	109.6	93.5

(1) Preliminary.

TABLE 3.—STOCKS OF SELECTED BUILDING MATERIALS HELD BY MANUFACTURERS, DECEMBER, 1946-1951

Material	Stocks on Hand at December 31						
	Unit	1946	1947	1948	1949	1950	1951 ⁽¹⁾
PLUMBING SUPPLIES—							
Cast Iron Soil Pipe and Fittings.....	Thousand tons.....	1.3	1.6	2.9	4.9	4.6	4.8
Cast Iron Pressure Pipe and Fittings.....	Thousand tons.....	(2)	2.3	4.7	8.3	6.7	9.2
Steel Pipe and Fittings.....	Thousand tons.....	17.2	6.7	8.9	17.6	29.5	18.5
SANITARY WARE—							
Bath Tubs.....	Thousand tubs....	1.0	1.5	0.6	1.2	1.5	13.2
Sinks.....	Thousand sinks....	3.5	4.8	4.3	13.9	10.2	24.4
Wash Basins.....	Thousand basins....	3.9	6.8	3.1	6.8	9.0	39.8
HEATING EQUIPMENT—							
Electric Water Heaters.....	Thousand heaters..	0.8	3.9	12.1	18.1	18.3	54.1
Hot Water Storage Tanks (Range Boilers)....	Thousand tanks....	0.1	0.3	0.2	1.2	2.8	2.2
Cast Iron Radiators.....	Million sq. ft.....	0.4	0.5	0.6	0.6	0.3	0.8
SAWN LUMBER.....	Billion b.f.m.....	0.5	0.5	0.7	0.7	0.7	0.8
CEMENT AND CEMENT PRODUCTS—							
Cement.....	Million barrels.....	0.5	0.7	0.6	0.8	0.7	0.9
Concrete Brick and Building Blocks.....	Million pieces.....	1.2	2.2	2.7	6.2	7.4	13.0
Cement Pipe and Tile.....	Thousand tons.....	12.2	10.4	12.9	31.7	34.3	40.2
CLAY PRODUCTS—							
Building Brick (including Sand-Lime Brick)..	Million bricks....	18.9	21.2	21.2	31.3	23.9	40.5
Vitrified Flue Linings.....	Thousand lin. ft....	23.8	26.2	19.0	35.9	20.6	157.3
Vitrified Sewer Pipe.....	Thousand lin. ft....	80.7	45.5	85.9	114.0	112.0	186.0
Structural Tile.....	Thousand tons.....	8.5	7.6	9.1	14.4	20.9	18.8
MINERAL WOOL PRODUCTS—							
Mineral Wool Batts (All sizes).....	Million sq. ft.....	0.4	0.6	0.6	2.0	1.7	3.2
Bulk Mineral Wool (Granulated and Loose)...	Million cu. ft.....	0.1	0.1	0.3	0.5	0.4	0.4
GYP SUM PRODUCTS—							
Gypsum Wallboard.....	Million sq. ft.....	1.8	1.2	1.6	1.2	2.6	2.6
Gypsum Lath.....	Million sq. ft.....	0.7	0.6	0.5	0.7	2.1	2.5
Gypsum Hardwall Plaster.....	Thousand tons.....	0.6	0.5	0.9	0.8	0.9	1.0
OTHER PRODUCTS—							
Non-Metallic Sheathed Cable.....	Million lin. ft.....	1.0	0.8	0.8	1.4	1.7	5.0

(1) Preliminary.

(2) Not available.

TABLE 4.—PRODUCTION INTENTIONS AND REALIZATION FOR SELECTED BUILDING MATERIALS IN CANADA, 1951

Material	Unit	Production Intentions	Realization ⁽¹⁾	Percentage Realization to Intentions
WIRE NAILS AND SPIKES.....	..Thousand tons.....	85.6	91.0	+ 6.3
PLUMBING SUPPLIES—				
Cast Iron Soil Pipe and Fittings	Thousand tons.....	59.5	53.0	-10.9
Cast Iron Pressure Pipe and Fittings.....	Thousand tons.....	109.9	116.2	+ 5.7
Steel Pipe and Fittings.....	Thousand tons.....	167.3	186.9	+11.4
SANITARY WARE—				
Bath Tubs.....	Thousand tubs.....	138.6	120.8	-12.8
Sinks.....	Thousand sinks.....	177.8	117.7	-33.8
Wash Basins.....	Thousand basins.....	232.5	195.7	-15.8
HEATING EQUIPMENT—				
Furnaces—Warm Air and Heating Boilers.....	Thousand furnaces.....	118.2	100.8	-14.7
Electric Water Heaters.....	Thousand heaters.....	267.4	293.2	+ 9.6
Hot Water Storage Tanks (Range Boilers).....	Thousand tanks.....	173.8	156.3	-10.1
Cast Iron Radiators.....	Million square feet.....	8.1	7.9	- 2.5
CEMENT AND CEMENT PRODUCTS—				
Cement.....	Million barrels.....	16.9	17.1	+ 1.2
Concrete Brick and Building Blocks.....	Million pieces.....	151.2	136.5	- 9.7
Cement Pipe and Tile.....	Thousand tons.....	153.6	292.8	+90.6 ⁽²⁾
CLAY PRODUCTS—				
Building Brick (including Sand-Lime Brick).....	Million bricks.....	406.0	431.5	+ 6.2
Vitrified Flue Linings.....	Million linear feet.....	1.4	1.5	+ 7.1
Vitrified Sewer Pipe.....	Million linear feet.....	5.6	4.2	-25.0
Structural Tile.....	Thousand tons.....	192.1	201.6	+ 4.9
MINERAL WOOL PRODUCTS—				
Mineral Wool Batts (All sizes)	Million square feet.....	173.0	149.7	-13.5
Bulk Mineral Wool (Granulated and Loose).....	Million cubic feet.....	14.9	11.5	-22.8
GYPSUM PRODUCTS—				
Gypsum Wallboard.....	Million square feet.....	253.3	230.2	- 9.1
Gypsum Lath.....	Million square feet.....	240.4	223.1	- 7.2
Gypsum Hardwall Plaster....	Thousand tons.....	199.7	168.5	-15.6
ROOFING PRODUCTS—				
Asphalt Shingles (All weights)	Million squares.....	2.4	2.2	- 8.3
Smooth and Mineral Surfaced Rolls.....	Million squares.....	2.5	2.5	0.0
MISCELLANEOUS PRODUCTS—				
Paints, Varnishes and Lacquers	Million dollars.....	91.4	94.9	+ 3.8
Rigid Insulating Boards.....	Million square feet.....	267.4	289.4	+ 8.2
Builders' Hardware.....	Million dollars.....	9.5	11.7	+23.2
Non-Metallic Sheathed Cable.	Million linear feet.....	110.4	93.5	-15.3

(1) Preliminary.

(2) In this case coverage of the survey of 1951 production intentions was incomplete.

Section V

SOURCES AND EXPLANATORY NOTES

This year the report deals with the same thirty building materials that were covered in Outlook 1951, and structural steel and concrete reinforcing bars have been added. Lumber is also included, as it was last year, but pig iron and rolling mill products have been omitted.

It should be borne in mind that this report is concerned more specifically with an overall appraisal of the Canadian production and supply position and prospects, although regional variations are discussed in certain cases. Data are obtained from current official statistical sources or from special surveys. All figures for 1951, the latest year, are preliminary as noted. Forecasts for 1952 except in the cases of structural steel and concrete reinforcing bars represent producers' intentions as seen by them a year in advance. A comparison of production intentions and actual production for a number of building materials in 1951 is shown in Table 4, entitled "Production Intentions and Realization for Selected Building Materials in Canada, 1951". No allowance is made in these forecasts for unexpected interruptions in production which may occur due to plant breakdowns, strikes, etc. In connection with forecasts of domestic supply, it should be borne in mind that Canada is not a large exporter or importer of manufactured building materials and supplies.

Production intentions for 1952 are based on surveys of the expected output of nearly all of the companies which produce the building materials covered in this report. The questionnaires were distributed by the Dominion Bureau of Statistics from which estimates of 1952 output were prepared. These estimates were then reviewed by the appropriate agencies of the Department of Trade and Commerce. Special inquiries were made by the Economics Division of the Department of Trade and Commerce in a few cases where the production intentions by the survey seemed unduly high or low. Production intentions for 1952 as published here represent final intentions as they existed at the beginning of 1952.

The statistics used in this report are based on data collected by the Dominion Bureau of Statistics except where otherwise noted. In making use of these Statistics, the following points should be kept in mind:

All 1951 figures are preliminary as noted.

Stocks figures are as reported by the producers only and do not include inventories at the wholesale or retail levels.

While the production intentions shown for 1952 represent the best available information at the time of publication, many factors may interfere with these production plans during 1952: e.g. prolonged management-labour disputes, delays in the procurement of machinery, equipment, materials and parts, or an inadequate supply of skilled labour.

Sources and Explanatory notes for the materials covered in this report are given below.

Steel Pipe and Fittings. This group consists of butt-weld and lap-weld steel pipe, steel pipe fittings and seamless steel tubing. The latter type has been added to this classification because of its increased use in building as a substitute for butt-weld pipe.

Sinks comprise flat and roll rim sinks, sink and drain board combinations and sink and tray combinations.

Furnaces. This classification consists of warm air furnaces and cast iron sectional hot water or steam domestic heating boilers.

Electric Water Heaters. This group comprises electric water heaters of the circulating, immersion, wrap-around and storage-tank types.

Hot Water Storage Tanks. This classification consists of galvanized, copper, Everdur and Monel storage tanks and range boilers.

Cement refers to the Portland type only. The unit of measure used is the barrel of 350 pounds.

Concrete Brick and Building Blocks comprise concrete brick, concrete blocks (cinder, gravel and other aggregates), and concrete chimney blocks. The figures shown are estimated from data supplied by the majority of producing firms in the field.

Cement Pipe and Tile includes cement drain pipe, sewer pipe, water pipe and culvert tile.

Building Brick comprises face and common clay brick and sand-lime brick. All figures used are estimates based on data supplied by the majority of producers. Imports have been converted from tons to thousand of bricks to assure comparability with other data.

Mineral Wool Batts. Figures are for 1-inch, 2-inch, 3-inch and 4-inch batts. Imports which are classified as "mineral wool, n.o.p." are reported in pounds and these figures have been converted to square feet, 3-inch basis, on the assumption these imports were batt wool.

Bulk Mineral Wool consists of granulated mineral wool and bulk or loose mineral wool.

Asphalt Shingles comprises asphalt shingles of all weights.

Common, Colourless Window Glass. Canadian production figures are not available for publication.

Non-Metallic Sheathed Cable. Included in this classification are the 12/2, 14/2 and Number 4 R.C.D.B. types of non-metallic sheathed cables.

Rigid Insulating Boards. This group consists of panel boards, plaster-base boards, roof boards and other building boards made from pulp or fibre. Exports are classified as "pulp and fibre wallboards" while imports are included in the "wallboard building board" category. Both exports and imports are reported in pounds and these figures have been converted to square feet, $\frac{1}{2}$ -inch basis, to assure comparability with production data.

